

APPENDIX C GUIDE FOR SELECTING OPERATING CONDITIONS

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EQUIPMENT TYPE	AVERAGE	SEVERE
<u>B25 and B35:</u> Buckets Clamshell or Dragline Depreciation Period:	Working in gravels, silts, and sands at low impact freshwater environment. 8,000 - 10,000 hours	Working in rock, hard digging, high impact, or saltwater environment. 6,500 - 8,000 hours
<u>C80 and C90:</u> Cranes Hydraulic, Truck Mounted Mechanical, Truck Mounted Depreciation Period:	Lift less than rated capacity, intermittent duty. 14,000 - 20,000 hours	Continuous lift near rated capacity, excessive swing, abrasive materials, sloped surfaces, and saltwater environment. 12,000 - 18,000 hours
<u>C85:</u> Cranes Mechanical Dragline, Lifting, or Clamshell Crawler Mounted Depreciation Period:	Gravels, silts, pull, and lift less than rated capacity. 14,000 - 22,000 hours	Highly abrasive materials, impact breakout, continuous load near rated capacity, and saltwater environment. 12,000 - 18,000 hours
<u>G10:</u> Generators Depreciation Period:	Working below rated capacity, good field conditions. 8,000 - 10,000 hours	Working at or above rated capacity, poor field conditions, such as saltwater. 7,000 - 8,000 hours

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EQUIPMENT TYPE	AVERAGE	SEVERE
<u>G15:</u> Graders, Motor	Haul road maintenance; road construction, ditching; loose fill spreading; landforming, landleveling; summer road maintenance with medium to heavy winter snow removal; and elevating grader use.	Maintenance of hard-packed roads with embedded rock; heavy fill spreading; ripping scarifying of asphalt or concrete; continuous high load factor; and high impact.
Depreciation Period:	14,500 hours	13,500 hours
<u>H25:</u> Hydraulic Excavators Crawler Mounted	Mass excavation or trenching where machine digs all the time in natural bed clay soils; some traveling and steady, full throttle operation; and most log loading operations.	Continuous trenching or truck loading in rock or shot rock soils; large amount of travel over rough ground; machine continuously working on rock floor with constant high load factor and high impact; and saltwater environment.
Depreciation Period:	8,500 - 19,000 hours	7,000 – 15,000 hours
<u>H30:</u> Hydraulic Excavators Wheel Mounted	Continuous digging in sandy clay/sandy gravel, site development, and lumber yard applications.	Continuous digging in rock/natural bed clay, high impact, using hammer, and working in forests or quarries.
Depreciation Period:	8,000 - 10,000 hours	6,500 - 8,000 hours

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<u>H35:</u> Hydraulic Shovels Crawler Mounted (nonelectric)	Continuous loading in well shot rock or fairly tight bank. Good underfoot conditions: dry floor, little impact, or sliding on undercarriage.	Continuous loading in poorly shot rock, virgin, or lightly blasted tight banks. Adverse underfoot conditions: rough floors, high impact sliding on undercarriage; and saltwater environment.
Depreciation Period:	14,000 - 18,000 hours	12,000 - 16,000 hours
<u>L10:</u> Land Clearing Equipment	Working in low impact conditions at or below rated capacity.	High impact conditions working at or above rated capacity.
Depreciation Period:	10,000 hours	7,000 hours
<u>L30:</u> Loaders, Belt (conveyors)	Working below rated capacity, with intermittent service.	Working at or above rated capacity with continuous service.
Depreciation Period:	10,000 hours	8,000 hours

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EQUIPMENT TYPE	AVERAGE	SEVERE
<u>L35:</u> Loaders, Front End Crawler Type Depreciation Period:	Bank excavation, intermittent ripping, basement digging of natural bed clays, sands, silts, and gravels; some traveling; and steady full throttle operations. 10,000 hours	Loading shot rock, cobbles, glacial till, and caliche; steel millwork; high density materials in standard bucket; continuous work on rock surfaces; large amount of ripping of tight rock materials; high impact conditions; and saltwater environment. 8,000 hours
<u>L40:</u> Loaders, Front End Wheel Type (does not include skid steer and tool carriers) Depreciation Period:	Continuous truck loading from stockpile; low to medium density materials in properly sized bucket; hopper charging in low to medium rolling resistance; loading from bank in good digging; and load and carry on poor surfaces and slight adverse grades. 9,250 - 13,500 hours	Loading shot rock (large loaders); handling high density materials with counterweighted machine; steady loading from very tight banks; continuous work on rough or very soft surfaces; load and carry in hard digging; travel longer distances on poor surfaces with adverse grades and saltwater environment. 8,750 - 12,000 hours
<u>L45 and L50:</u> Loaders with Backhoe Crawler Type and Wheel Type Depreciation Period:	Utility applications in medium to heavy soil; occasional use of constant flow implements and dig depths to 3.05 meters (10 feet). 8,000 hours	Production applications or digging in rock; regular use of constant flow implements; and dig depths over 3.05 meters (10 feet). 6,000 hours

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<u>L60:</u> Log Skidders Depreciation Period:	Continuous turning, steady skidding for medium distances with moderate decking. Good underfooting: dry floor with few stumps and gradual rolling terrain. 10,000 hours	Continuous turning, steady skidding for long distances with frequent decking; poor underfoot conditions: wet floor, steep slopes, and numerous stumps; and saltwater environment. 8,000 hours
<u>M10 - .31 and .32:</u> Clamshell dredges < 5 cy Amphibious Excavator Depreciation Period:	Gravel, silts, breakout force at less than capacity, freshwater conditions. 10,000 - 20,000 hours	Rock, abrasive materials, load at rated capacity, saltwater conditions. 9,000 - 18,000 hours
<u>M10 - .51 and .53:</u> Boats, Skiffs, Crew Boats, Work Boats, Survey Boats, and Launches Depreciation Period:	Freshwater applications, light waves, and steady to light use. 16,000 - 18,000 hours	Saltwater use, medium to high waves, heavy use. 13,000 - 15,000 hours
<u>P35:</u> Pipelayers Depreciation Period:	Typical pipelayer use in operating conditions ranging from very good to severe. 14,000 hours	Continuous use in deep mud or water or on rock surfaces. 11,500 hours

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<u>R10:</u> Rippers and Bank Slopers Depreciation Period:	Light rock, medium breakout force required. 8,000 hours	Hard rock, excessive wear due to high breakout force. 6,500 hours
<u>S10, S15, S20, and S25:</u> Scrapers Self-Propelled Tractor Drawn Soil Stabilizers Depreciation Period:	Varying loading and haul road conditions; long and short hauls; adverse and favorable grades; some impact; and typical road-building use on a variety of jobs. 10,000 - 15,000 hours	High impact conditions, such as loading ripped rock; overloading, continuous high total resistance conditions; and rough haul roads. 8,000 - 13,500 hours
<u>T15:</u> Tractors Crawler (Dozer) Depreciation Period:	Production dozing in clays, sands, gravels, and talus rock. Push-loading scrapers, borrow pit ripping, most land clearing and skidding applications. Medium impact conditions. Production landfill work. 10,000 - 15,000 hours	Heavy rock ripping; tandem ripping; pushloading and dozing in hard rock; work on rock surfaces; continuous high impact conditions; and saltwater environment. 8,000 - 12,500 hours

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EQUIPMENT TYPE	AVERAGE	SEVERE
<u>T20:</u> Tractors Wheel Type (Dozer)	Production dozing, push loading in clays, sands, silts, loose gravels; and shovel cleanup.	Production dozing in rock; push loading in rocky, boulder strewn borrow pits; high impact conditions; and landfill compactor work.
Depreciation Period:	14,000 hours	13,000 hours
<u>T30:</u> Trenchers Chain and Wheel Type	Working in sands and silts below rated capacity of the machine.	Working in gravels and abrasive materials at or above the rated capacity of the machine.
Depreciation Period:	8,000 hours	6,000 hours
<u>T45 and T50:</u> Truck Trailers Trucks, Highway	Varying loading and road conditions; and typical construction use on a variety of jobs.	Consistently poor road conditions; and oversized loading equipment.
Depreciation Period:	8,000 - 12,000 hours	6,500 - 10,000 hours

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EQUIPMENT TYPE	AVERAGE	SEVERE
<u>T55 and T60:</u> Truck, Off-Highway Trucks, Water, Off-Highway (Articulated and Rigid)	Varying load and haul road conditions; high rolling resistance and poor traction during part of the job; some adverse grades; some impact loads; and typical use in road building, dam construction, open-pit mining, <i>etc.</i>	Continuous use on very poorly maintained haul roads, high rolling resistance, and poor traction; frequent adverse grades and high impact loads; and poorly matched loading equipment with continuous overloading.
Depreciation Period:	12,000 - 20,000 hours	10,000 - 18,000 hours
<u>W10 and W15:</u> Wagons Bottom Dump Rear Dump	Varying load and haul road conditions; long and short hauls; high rolling resistance and poor traction during part of the job; some adverse grades; some impact; typical road building use in a variety of jobs; and dam construction, open-pit mining, <i>etc.</i>	Continuous use on very poorly maintained haul roads, high rolling resistance, and poor traction; high impact conditions, such as loading ripped rock; frequent adverse grades and high impact loads; and poorly matched loading equipment with continuous overloading.
Depreciation Period:	12,000 hours	10,000 hours